



Dart Aerospace Ltd.
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Hawkesbury, ON
K6A 1K7
Canada

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D4961-043 Job Sheet 189917



Part No: D4961-043

Job Qty: 6 pcs

Part Name: Tube Assembly



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 1/31/19

Job Tracking No:

Due Date: 3/4/19

Created By: Dara Macdonald

Type: ~~SOLD~~ STOCK

Description:

Note: DWG REV C IPP REV:A 15.02.18 NEW ISSUE DD VERF:JLM

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		DAS Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
110	Small Fab - 1	6 pcs	3/4/19		0.00	3.74	Small Fab - 1		DAS 58 9-89 FEB 05 2019
							Small Fab - 2		
							Small Fab - 3		
							Small Fab - 4		
							Small Fab - 5		
							Small Fab - 6		
							Small Fab - 7		
120	QC 5	6 pcs	3/4/19		0.00	0.00	QC 5 - 10		DAS 40 9-89 MAR 08 2019
							QC 5 - 12		
							QC 5 - 17		
							QC 5 - 18		
							QC 5 - 19		
							QC 5 - 22		
							QC 5 - 24		
							QC 5 - 3		
							QC 5 - 38		
							QC 5 - 42		
							QC 5 - 43		
							QC 5 - 49		
							QC 5 - 51		
							QC 5 - 58		
							QC 5 - 68		
							QC 5 - 9		
							QC 5 - 50		
							QC 5 - 30		
130	Packaging 3-1 - Stock - B4B	6 pcs	3/4/19		0.00	0.00	Packaging 3 - 1 - B4B		
							Packaging 3 - 2 - B4B		
							Packaging 3 - 3 - B4B		
							Packaging 3 - 4 - B4B		
							Packaging 3 - 5 - B4B		

				Packaging 3 - 6 - B4B	
				Packaging 3 - 7 - B4B	
				Packaging 3 - 8 - B4B	
				Packaging 3 - 9 - B4B	
				Packaging 3 - 10 - B4B	
				Packaging 3 - 11 - B4B	
				Packaging 3 - 12 - B4B	
				Packaging 3 - 13 - B4B	
				Packaging 3 - 14 - B4B	
				Packaging 3 - 15 - B4B	
				Packaging 3 - 16 - B4B	
				Packaging 3 - 17 - B4B	
				Packaging 3 - 18 - B4B	
				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	
				Packaging 3 - 23 - B4B	
				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	
				Packaging 3 - 27 - B4B	54129
				Packaging 3 - 28 - B4B	
				Packaging 3 - 29 - B4B	
				Packaging 3 - 30 - B4B	
				Packaging 3 - 31 - B4B	
				Packaging 3 - 32 - B4B	
				Packaging 3 - 33 - B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
140	QC 21 - SA	6 pcs	3/4/19	0.00 0.00	QC 21 - SA - 21
					QC 21 - SA - 70

MAR 13 2019

DAS
70
9-89

Part Op 110 - (Small Fab) 1- Cut D4961-3 tube to size as per dwg 2- On one side of tube flare end as per dwg then slide sleeves
Descriptions: and nuts, flare other side of tube as per dwg.

120 - (QC5- Inspect part completeness to step on W/O) QC5- Inspect part completeness to step on W/O

130 - (Identify as per dwg & Stock Location: _____) Identify as per dwg & Stock Location: _____

140 - (QC21- Final Inspection - Work Order Release) QC21- Final Inspection - Work Order Release

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
AN818-L12J	Nut	12 Ea (2 ea)	110-Small Fab - 1	5143669
M304TR0.750W.049	304 Round Tube .750 X .049W	1.5000 ft (.25 ea)	110-Small Fab - 1	5126573
MS20819-12J	Sleeve	12 Ea (2 ea)	110-Small Fab - 1	5107743

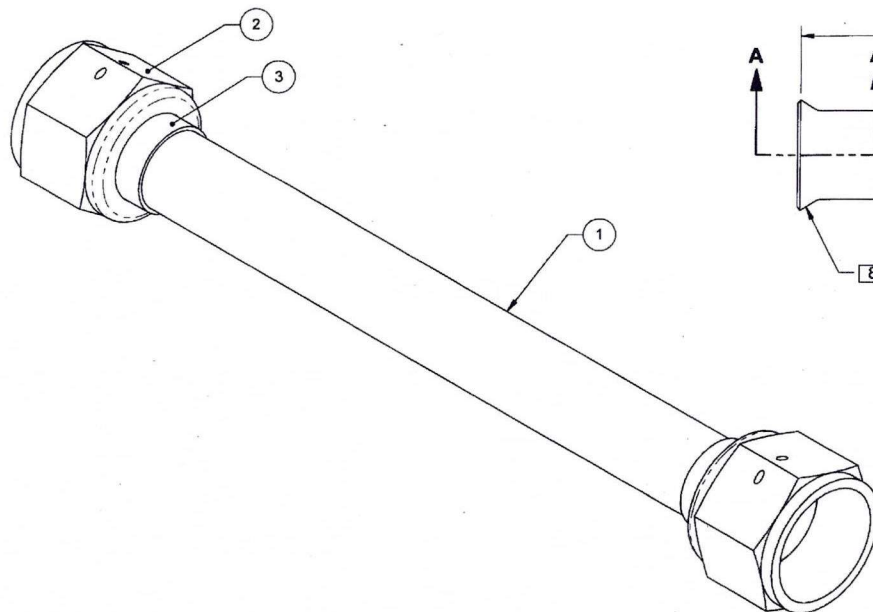
Job Allocations

Operation	Component Part	Required	Inventory	Allocated
110-Small Fab - 1	AN818-L12J	12	83	0
	M304TR0.750W.049	2	214	0
	MS20819-12J	12	52	0

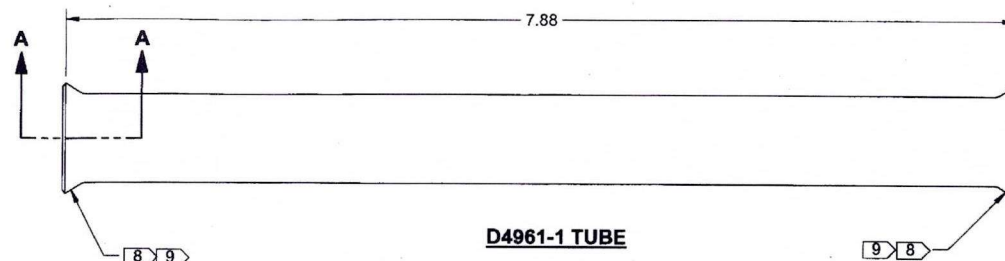
Part Specifications

Specifications could not be found.

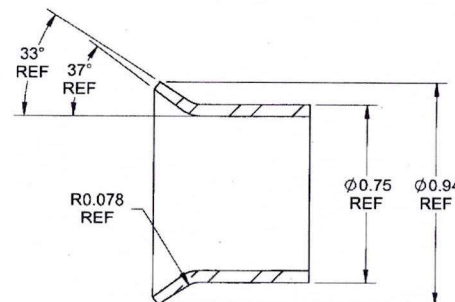
ITEM	QTY	P/N	DESCRIPTION
	X	D4961-041	TUBE ASSEMBLY
1	1	D4961-1	TUBE
2	2	AN818-L12J	NUT, TUBE COUPLING (DRILLED)
3	2	MS20819-12J	SLEEVE



D4961-041 TUBE ASSEMBLY



D4961-1 TUBE



SECTION A-A

NOTES:

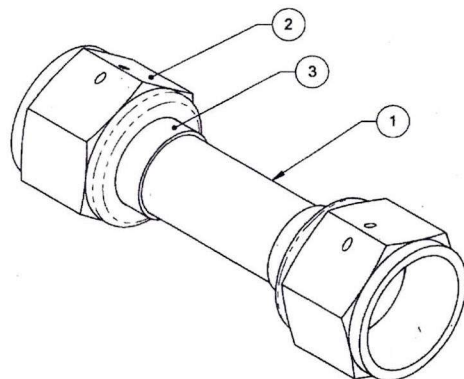
- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SEAMLESS ROUND TUBING, $\phi 0.750 \times 0.049$ WALL PER ASTM A213 OR ASME SA213 OR ASTM A269 (REF DART SPEC M304TR)
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 0.59 lbs
- 8) FLARE TUBE PER MS33584
- 9) CLEAN INSIDE OF TUBE AFTER FLARING ENDS

RELEASED
2016-08-04
EW 16-622

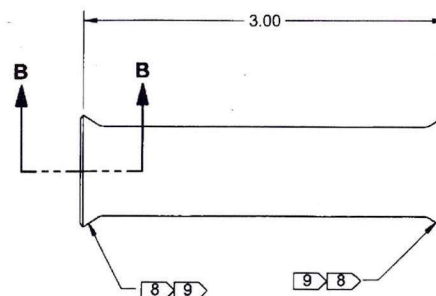
APPROVED

C	ADDED D4961-045 (SHEET 3)	CC	16.06.21
B	UPDATED BOM P/N AN818-L12J WAS AN818-12J. ADDED SHEET 2 (D4961-043)	AK	14.11.07
A	NEW ISSUE	VS	13.10.21
REV.	DESCRIPTION	BY	DATE
DESIGN	VS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	CC		
CHECKED	VS	DRAWING NO.	REV. C
MFG. APPR.	DD	D4961	SHEET 1 OF 3
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	TUBE ASSEMBLY	NTS
DATE	16.06.21	COPYRIGHT © 2016 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

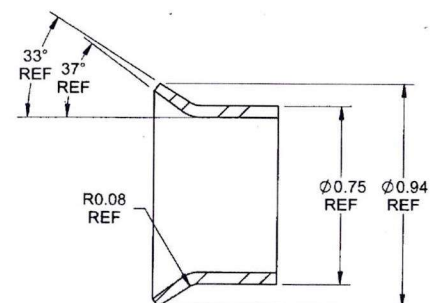
ITEM	QTY -043	P/N	DESCRIPTION
	X	D4961-043	TUBE ASSEMBLY
1	1	D4961-3	TUBE
2	2	AN818-L12J	NUT, TUBE COUPLING (DRILLED)
3	2	MS20819-12J	SLEEVE



D4961-043 TUBE ASSEMBLY



D4961-3 TUBE



SECTION B-B

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SEAMLESS ROUND TUBING, $\phi 0.750 \times 0.049$ WALL PER ASTM A213 OR ASME SA213 OR ASTM A269 (REF DART SPEC M304TR)
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 0.44 lbs
- 8) FLARE TUBE PER MS33584
- 9) CLEAN INSIDE OF TUBE AFTER FLARING ENDS

RELEASED
2016-08-04

APPROVED

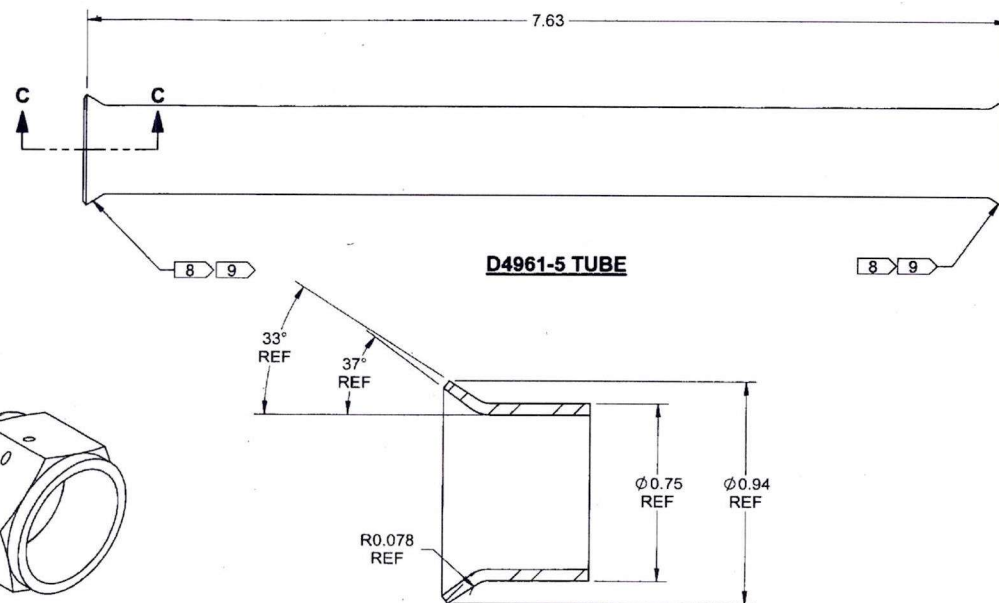
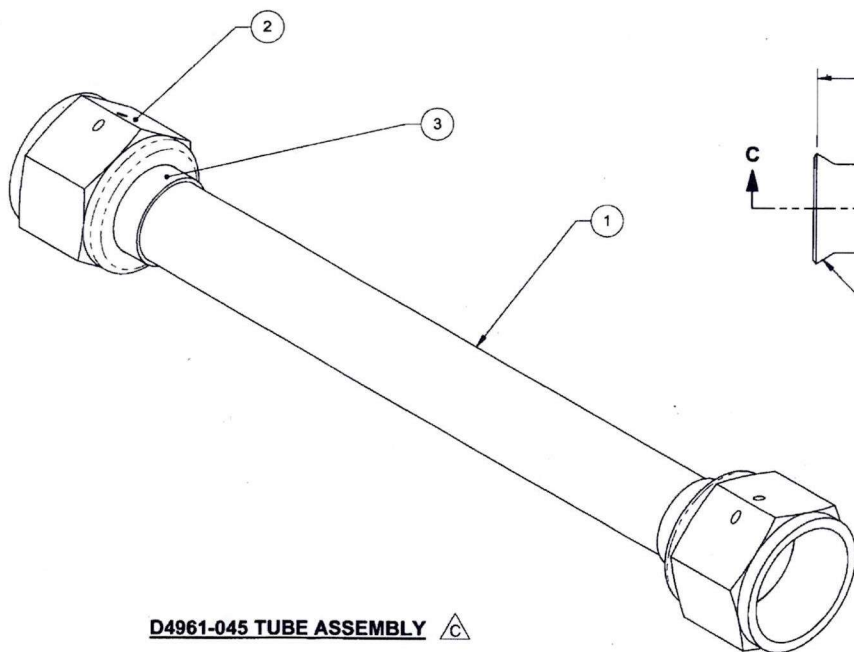
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MFG. APPR.	DD
APPROVED	HS
DE APPR.	DS
DATE	16.06.21

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO.	REV. C
D4961	SHEET 2 OF 3
TITLE	SCALE
TUBE ASSEMBLY	NTS

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ITEM	QTY -045	P/N	DESCRIPTION
	X	D4961-045	TUBE ASSEMBLY
1	1	D4961-5	TUBE
2	2	AN818-L12J	NUT
3	2	MS20819-12J	SLEEVE



NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SEAMLESS ROUND TUBING, $\phi 0.750 \times 0.049$ WALL PER ASTM A213 OR ASME SA213 OR ASTM A269 (REF DART SPEC M304TR)
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER QSI 044 6.1
- 7) WEIGHT: 0.59 lbs
- 8) FLARE TUBE PER MS33584
- 9) CLEAN INSIDE OF TUBE AFTER FLARING ENDS

RELEASED
2016-08-04

APPROVED

DESIGN	VS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	CC		
CHECKED	VS	DRAWING NO.	REV. C
MFG. APPR.	DD	D4961	SHEET 3 OF 3
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	TUBE ASSEMBLY	NTS
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Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
Date :	Sequence #:	QTY Affected :		MRB (QSI042)	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor	
				QC / QA Coordinator	
Root Cause Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Preservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors ☐		FAULT CATEGORY ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread			
Other/Details:					



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Container No: S150702



Part: D4961-043

Job No: 189917

Serial No/Batch: S150702

Revision:

Inspector:

Exp Date:

Instructions: Various STC's

Date: 02/05/19